

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter, on the Commission's own motion,)	
to commence an investigation into a)	Case No. U-18172
September 7, 2016 accidental electrocution in Detroit.)	
_____)	

At the December 7, 2017 meeting of the Michigan Public Service Commission in Lansing,
Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman
Hon. Norman J. Saari, Commissioner
Hon. Rachael A. Eubanks, Commissioner

ORDER CLOSING DOCKET

Background

On September 23, 2016, the Commission issued an order in Case No. U-18172 (September 23 order) directing DTE Electric Company (DTE Electric) to commence an investigation into an accidental electrocution that occurred in Detroit on September 7, 2016, and to meet with the Commission Staff (Staff) to develop a plan for the utility to address similar situations throughout Detroit that may pose a potential serious safety risk.¹ DTE Electric was to implement the plan and, within 30 days of its implementation, file a report that explained any material deviations from the plan. *See*, September 23 order, ordering paragraphs.

¹ Mich Admin Code, R 460.3801, Protective Measures, provides that "Each utility shall exercise reasonable care to reduce the hazards to which its employees, its customers, and the general public may be subjected."

Reports

On October 21, 2016, DTE Electric filed its five-page investigative report, plus eight pages of photos and answers to questions posed by the Staff.² The report states that on July 27, 2016, a DTE Electric field operations employee, en route to another location, observed that two City of Detroit Public Lighting Department (DPLD) arc power lines³ were detached from a utility pole cross-arm and laying across DTE Electric's primary lines. The report goes on to explain that the employee surveyed the area and noticed that the lines were hanging down into the trees and one was on the ground in the rear of 16767 St. Mary's Street. DTE Electric's investigative report, p. 1; DTE Electric's response to the Staff's question 2.

The DTE Electric report indicates that the employee followed procedure and promptly surrounded the area with caution tape, then went door-to-door in the neighborhood to warn of the downed arc power lines,⁴ leaving a written notice at one home where no one answered the door. According to DTE Electric, the employee also reported the downed arc power lines to DTE Electric Dispatch (Dispatch) and within minutes, Dispatch logged the report and transferred the information to the DPLD. DTE Electric states that shortly thereafter, the DPLD acknowledged the job in their shared system and transferred the service request to the Public Lighting Authority of the City of Detroit (PLA), which was formed to install Detroit's new public lighting system. DTE

² The full text of the investigative report may be viewed in this docket on the Commission's website.

³ Arc power lines, also called arc wires, arc circuit wires, or arc circuit conductors, are specific wires that were formerly used to supply electricity to arc-type street lamps. Arc lamps are considered obsolete. In the city of Detroit, a new lighting system has been installed; but, numerous arc wires remain attached to utility poles.

⁴ DTE Electric's report does not state whether the field operations employee was aware that the lines were energized.

Electric reports that PLA personnel visited the scene on July 27, 2016, and incorrectly noted in its own internal system that the downed arc power lines belonged to DTE Electric and that DTE Electric had made them safe.⁵ According to DTE Electric, neither the DPLD nor the PLA notified DTE Electric to advise that the transferred work was completed; however, DTE Electric believed the downed arc power lines were repaired or removed because the DPLD acknowledged receipt of the job. Thus from July 27, 2016, until September 7, 2016, DTE Electric presumed that the downed lines were promptly remedied by either the DPLD or the PLA and no longer posed a potential danger to the public. DTE Electric posits that the DPLD believed that the PLA had cleared the downed lines, and the PLA believed that DTE Electric had done so. DTE Electric's investigative report, pp. 1-3.

DTE Electric's investigative report states that on the evening of September 7, 2016, a child playing near the downed wires came into contact with one of them and was electrocuted. A Detroit Police Department officer telephoned DTE Electric within minutes of the incident. DTE Electric personnel were dispatched, and subsequently, a DTE Electric line crew cut the two DPLD lines free. The report also states that, following the incident, stretched and faded caution tape was observed at the base of one of the utility poles to which the loose arc wires were attached, as well as along the route where it was initially placed on July 27, 2016. DTE Electric's investigative report, p. 3.

In its report, DTE Electric theorizes that the arc power lines that caused the electrocution were not energized when properly attached to the utility pole cross-arm because they were out-of-

⁵ Neither the DPLD nor the PLA were sent a courtesy copy of the initial order and were not asked to provide a report in the docket; however, the City of Detroit was provided a copy of DTE Electric's investigative report of October 21, 2016. In a letter to the Commission, the City of Detroit states its "fundamental disagreement" with the report. *See*, City of Detroit's letter, November 18, 2016.

service. DTE Electric believes that the arc wire became energized only upon contact with the 4.8 kilovolt single-phase primary circuit after breaking free of the utility pole. DTE Electric asserts that the two downed lines belong to the DPLD, and apparently, had been out-of-service since sometime in the 1990s. DTE Electric's investigative report, answers to the Staff's questions 2, 4, 12, and 15.

Prior to meeting with the Staff on November 4, 2016, DTE Electric met with the DPLD and the City of Detroit (City). DTE Electric communicated to the Staff a number of process improvements the utility and the DPLD discussed, and indicated that they were meeting weekly to review downed wire-type jobs that DTE Electric transferred to the DPLD. Initially, 70 jobs were reviewed, revealing that approximately 15 of those jobs needed some type of follow-up. In reviewing an additional 200 such jobs, no significant issues were found. From January 1, 2017, through August 9, 2017, DTE Electric transferred 230 downed wire-type jobs to the DPLD. According to DTE Electric, the DPLD's average response time for the jobs over this same period of time was under 24 hours. Staff's report, pp. 4-6; DTE Electric annual report, p. 2.

DTE Electric also reports that the DPLD will not transfer any jobs to the PLA without first conducting a field review. Other process improvements to be performed by the DPLD include taking photos of each downed wire site, having a second person field-verify that work was complete, and meeting weekly with DTE Electric to review closed downed wire jobs for adherence to the agreed upon procedures. In addition, DTE Electric committed to conducting its own field audits on a percentage of closed downed wire jobs performed by the DPLD, and providing them with weekly metrics. DTE Electric reports that it continues to work with the DPLD to monitor and review transferred work assignments, response times, and second-person verification of job completion. *Id.*

On November 18, 2016, the City submitted to the Commission a copy of the DPLD's "Make Safe" policy and flow chart with an estimated cost to remove the DPLD's arc wire. In an attached letter, the City restates its zero tolerance policy and requests that the Commission consider the letter a "subsequent remedial measure." The Commission has no authority to regulate any aspect of the DPLD's operations and did not pursue the matter further with the City. Staff's report, pp. 3, 6.

The Staff's eight-page report, filed on November 23, 2016, states that the DPLD will dispatch a first responder to any dangerous or potentially dangerous situation as a result of downed conductors and will "maintain complete ownership of the site, seeing the event through to completion, including maintaining public safety and event closeout." *Id.*, p. 6. According to the Staff, in the event that the DPLD personnel on site are not qualified to cut the conductors clear, the personnel will remain until qualified personnel arrive. No dangerous or potentially dangerous situations will be "left unattended or in any unsafe condition, at any time." *Id.* The DPLD estimates that it will cost \$35.7 million and take at least two years, and perhaps as long as ten years, depending on the number of crews assigned, to eradicate the estimated 600 to 900 miles⁶ of out-of-service arc wire. *Id.*

In its annual report, filed on September 1, 2017, DTE Electric reports that the utility has participated in two pilot programs involving the removal of arc wire. In partnership with the DPLD, crews removed 5,042 feet of arc wire from the Ludden 22 circuit, 6,480 feet of arc wire from the Walton 692 circuit, and 135,450 from DPLD's out-of-service Montrose substation. DTE Electric's annual report, p. 2.

⁶ There are varying estimates as to the amount of out-of-service arc wire.

Discussion

Based on the Staff's report and DTE Electric's initial proposed plans and annual report, it appears that DTE Electric and the DPLD have cooperated to implement and monitor process improvements to avoid gaps in responding to downed wire incidents and have committed to making downed wire hazard response a top priority safety concern. The Commission urges the entities to continue their cooperative efforts and the attention to detail devoted to this important task.

In terms of the removal of out-of-service arc wire, the Commission acknowledges that DTE Electric does not have ownership of, or responsibilities for, the out-of-service arc wire. Even so, the Commission is encouraged by DTE Electric's efforts to develop a comprehensive plan to remove the arc wire in order to mitigate potential safety risks in the future. However, that effort is more wide-reaching than the electrocution investigation that began in this docket, and will be addressed in a separate docket.

The Commission is concerned about the potential hazard posed by out-of-service arc wire that may come in contact with energized DTE Electric facilities. The Commission is responsible to ensure the safe delivery of electricity to the residents of Michigan, and the current "Make Safe" measures, while an improvement, are short-term and reactive, and do not address the long-term problem of out-of-service arc wire in Detroit. A full resolution may involve the eventual removal and/or isolation of all arc wire, a daunting task because the complex system spans the entire city of Detroit and some outlying areas.

Conclusion

The Commission opened this docket to investigate the September 7, 2016, electrocution. Through the information received, it has determined that progress is being made to improve

response times and communication between the various entities involved. The Commission expresses its deepest sympathies to the family and friends of the child who was the victim of the accident. This tragic event and subsequent investigation revealed that the out-of-service arc wire presents a potential safety hazard to the residents of Detroit. The resolution of this issue will be a long-term comprehensive undertaking that exceeds the purpose of this docket. Accordingly, the Commission is closing this docket and opening a new docket, Case No. U-18484, to monitor and address out-of-service arc wire issues. An expanded discussion of the Commission's understanding of the complex nature of electrical infrastructure in Detroit, DTE Electric's pilot programs, and next steps are included in the order opening the new docket.

THEREFORE, IT IS ORDERED that this docket is closed.

The Commission reserves jurisdiction and may issue further orders as necessary.

Any party desiring to appeal this order must do so by the filing of a claim of appeal in the Michigan Court of Appeals within 30 days of the issuance of this order, under MCL 462.26. To comply with the Michigan Rules of Court's requirement to notify the Commission of an appeal, appellants shall send required notices to both the Commission's Executive Secretary and to the Commission's Legal Counsel. Electronic notifications should be sent to the Executive Secretary at mpscdockets@michigan.gov and to the Michigan Department of the Attorney General - Public Service Division at pungp1@michigan.gov. In lieu of electronic submissions, paper copies of such notifications may be sent to the Executive Secretary and the Attorney General - Public Service Division at 7109 W. Saginaw Hwy., Lansing, MI 48917.

MICHIGAN PUBLIC SERVICE COMMISSION

Sally A. Talberg, Chairman

Norman J. Saari, Commissioner

Rachael A. Eubanks, Commissioner

By its action of December 7, 2017.

Kavita Kale, Executive Secretary